Customer No.: 31561
Application No.: 10/707,825
Docket No.: 10786-US-PA

AMENDMENT

Please amend the application as indicated hereafter.

To the Claims :

1. (previously presented) A flip-chip gold bump structure for bonding with a copper-containing solder material, the gold bump structure being formed on a wafer, the structure comprising:

at least one gold bump; and

a reaction barrier layer on the gold bump, wherein the reaction barrier layer comprising a copper layer disposed on a nickel layer.

2. (original) The flip-chip gold bump structure of claim 1, wherein the nickel layer has a thickness about from 0.1 μm to about 20 μm.

3. (original) The flip-chip gold bump structure of claim 1, wherein the copper layer has a thickness about from 0.1 μm to about 10 μm.

4. (original) The flip-chip gold bump structure of claim 1, wherein the gold bump has a height about from 3 μm to about 150 μm.

5. (previously presented) A flip-chip package structure adapted to connect a chip and a chip substrate, the structure comprising:

at least one gold bump on the chip;

a nickel layer on the gold bump; and

a solder containing copper on the nickel layer for connecting the chip and the chip substrate.

6. (original) The flip-chip package structure of claim 5, wherein the solder containing copper includes a solder alloy.

7. (original) The flip-chip package structure of claim 6, wherein copper in the solder alloy is from about 0.7 wt.% to about 3.0 wt.%.

8. (original) The flip-chip package structure of claim 5, wherein the nickel layer has a thickness about from 0.1 μm to about 20 μm.

9. (original) The flip-chip package structure of claim 5, wherein the gold bump has a height about from 3 μm to about 150 μm.

10. (cancelled)

11. (cancelled)

12. (cancelled)

13. (cancelled)

14. (cancelled)

15. (cancelled)

16. (cancelled)

17. (cancelled)

18. (cancelled)

19. (cancelled)

20. (cancelled)

21. (cancelled)

22. (cancelled)